PRODUCT BRIEF
Intel® Desktop Board DN2800MT
Innovation Series

Mini-ITX Form Factor

Intel® Desktop Board DN2800MT Innovation Series

The Intel® Desktop Board DN2800MT is the latest Innovation Series board that optimizes the performance of the Intel® Atom™ processor N2800 and the Intel® NM10 Express Chipset by delivering new-generation technologies, value-added features, and easy integration. The Intel Desktop Board DN2800MT board is suitable for ultra-small form factor or all-in-one systems that require dual independent display capabilities in a fanless system.

The Intel Desktop Board DN2800MT features the new integrated dual-core 1.86 GHz Intel Atom processor N2800. This processor supports the Intel® Graphics Media Accelerator 3650, an improved graphics core supporting high-definition video playback capabilities compared with the previous-generation entry-level desktop PC. This board provides flexibility and upgradability with two single-channel SODIMM connectors for DDR3 1066 / 800 MHz memory support (4 GB[1] max). The use of SODIMM memory modules delivers greater performance and power efficiency. The revolutionary two-chip layout continues to enable lower power consumption and saves 70 percent of its board layout size. This results in a board that has better heat flow with the fanless thermal solution.

The Intel Desktop Board DN2800MT provides enhanced features such as 10/100/1000 Mb/s integrated LAN, integrated four-channel Intel® High Definition Audio, and dual display capability with HDMI* and VGA ports. Supporting a USB Solid-State Drive keep-out zone design and mini-SATA PCI Express* Mini-Card connector, the Intel Desktop Board DN2800MT is ideal for diskless usage model by integrating the Solid-State Drive onto the board.

The Intel Desktop Board DN2800MT is a mini-ITX form factor board. Backward-compatible with ATX and microATX, this form factor allows you to build energy-efficient and small form factor solutions. This board offers simple, affordable, and Internet-centric computer designs in a compact 170mm x 170mm size; perfect for an ultra-small form factor system with one-litre type chassis or all-in-one chassis.

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The boxed Intel® Desktop Board DN2800MT solution includes:

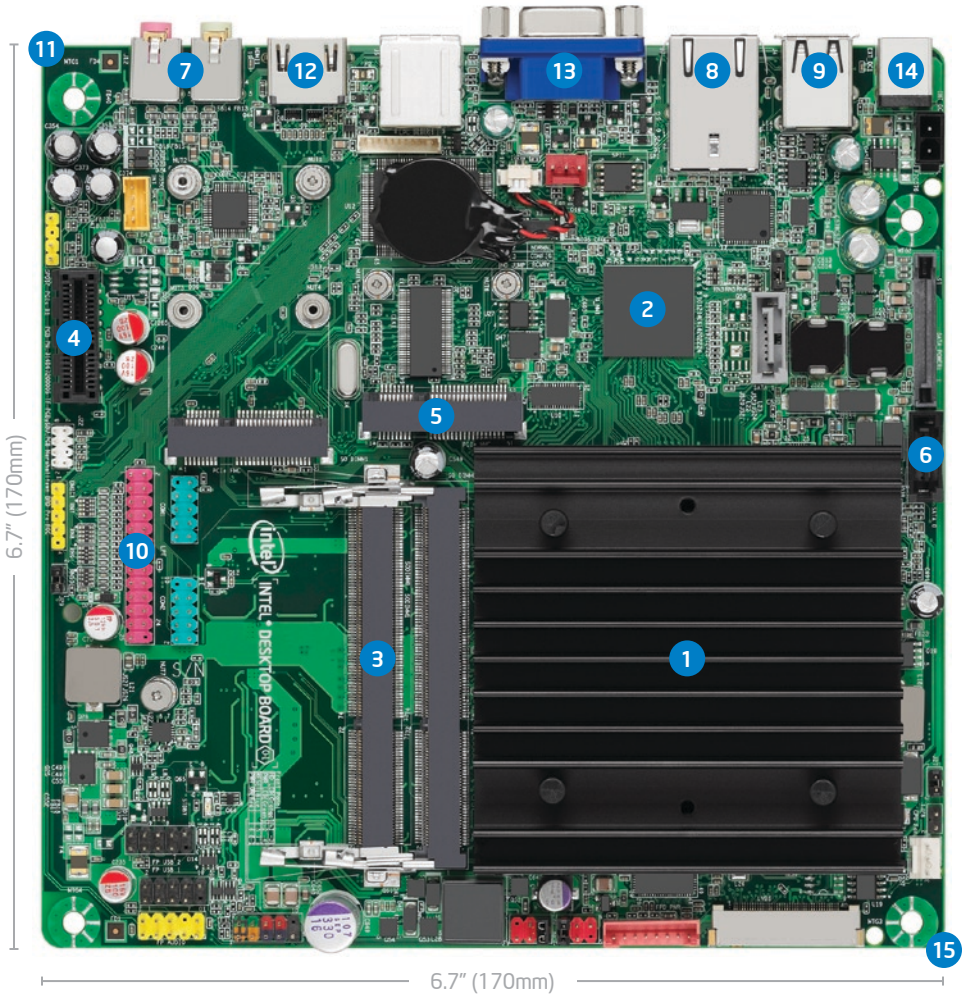
- ATX 2.2 compliant standard-height I/O shield
- ATX 2.2 compliant half-height I/O shield
- SATA cables
- SATA data with power cable
- Board and back panel I/O layout stickers
- Quick reference guide
- Intel® Express Installer driver and software DVD
- Microsoft* Windows* 7 WHQL certified

The takeaway software included with the Intel® Desktop Board DN2800MT works best for your everyday computing.

CAPABILITY	SOFTWARE INCLUDED:
Productivity	▪ Intel AppUp℠
	▪ Intel® Integrator Assistant (Internet Download)
	▪ Laplink* PCmover Express*
Entertainment	▪ DivX* for Windows*
Antivirus	▪ ESET* Smart Security 4 (45-day license)

Intel® Desktop Board DN2800MT Innovation Series
Features and Benefits

1. **Integrated with the new dual-core Intel® Atom™ processor N2800:** Features an integrated graphics core (Intel® GMA 3650) with high-definition graphics performance improvements.
2. **Intel® NM10 Express Chipset:** Designed to support the new Intel® Atom™ processor N2800.
3. **Single-channel DDR3 with two connectors for 1066 / 800 MHz memory support (4 GB[1] max)**
4. **One PCI Express* connector:** Expansion connector for custom system configurations and future add-in card upgrades.
5. **Two PCI Express Mini Card connectors:** Expansion connectors for future add-in upgrades such as Wi-Fi* or WiMax* cards and supports mobile SATA (mSATA).
6. **Two SATA ports (3.0 Gb/s)**
7. **Four-channel Intel® High Definition Audio[2]:** Rich stereo audio at an excellent value.
8. **Integrated 10/100/1000 Mb/s Network Connections**
9. **Eight Hi-Speed USB 2.0 ports:** Four back panel ports and four additional ports via internal header.
10. **Parallel and serial ports:** Provide legacy device compatibility.
11. **Supports fanless system in ultra-small form factor chassis (one-litre chassis)**
12. **Dual independent display from HDMI*, VGA, and Embedded DisplayPort* / LVDS connectivity**
13. **2nd generation flat panel display (FPD) support:** 18 / 24bpp, single- / dual-channel LVDS, 1- / 2- / 4-lane eDisplayPort, EDID, and non-EDID panel support, flexible voltage settings, single-cable connectivity, and brightness button input.
14. **8 V to 19 V wide-range voltage input via back-panel DC jack or internal power connector**
15. **Mini-ITX / microATX-compatible form factor**



Intel® Desktop Board DN2800MT Innovation Series
Technical Specifications

For ordering information, visit **www.intel.com**

For the most current product information, visit **http://developer.intel.com/products/desktop/motherboard/**

PROCESSOR
Processor Support
- Intel® Atom™ processor N2800 (dual-core / 1.86 GHz / Intel® Hyper-Threading Technology[3] / 512 KB x 2 L2 cache)

CHIPSET
- Intel® NM10 Express Chipset

Graphics
- Intel® Graphics Media Accelerator 3650
- One VGA port
- One HDMI* port
- 24bpp dual-channel LVDS connector
- 2nd generation flat panel display (FPD) support

I/O Controller
- Two SATA ports (fully shrouded)
- Two serial headers
- One parallel header

USB 2.0
- Four external ports (two high-current / fast-charging USB ports)
- Four ports via headers

Audio Solution
- 2+2-channel Intel® High Definition Audio[2] (with multi-streaming)
- Front-panel mic / headphone header
- AIO audio headers (for internal stereo speakers and digital microphone)

10/100/1000 Network Connection
- Intel® 82574L 10/100/1000 Mb/s Ethernet Controller

System BIOS
- 8 Mb Flash EEPROM with Intel® Platform Innovation Framework for EFI Plug and Play
- Advanced configuration and power interface V2.0b, DMI 2.0
- Serial Peripheral Interface (SPI) Flash

Fast Boot BIOS
- Optimized POST for almost instant-on access to PC from power-on

SYSTEM MEMORY
Memory Capacity
- Single-channel DDR3 with two connectors for 1066 / 800 MHz memory support (4 GB[1] max)

Memory Types
- DDR3 1066 / 800 SDRAM memory support
- Non-ECC Memory

Memory Voltage
- 1.8 V

Wake-up from Network
- Wired for Management (WfM) 2.0 compatible
- Support for system wake-up using onboard network interface card with remote wake-up capability

Expansion Capabilities
- One PCI Express* connector
- Two PCI Express Mini Card connectors

JUMPERS AND FRONT PANEL CONNECTORS
Jumpers
- Jumper: yellow
- Header: black

Front-Panel Connectors
- Reset, HD LED, Power LEDs, power on/off, aux LED
- USB 2.0 headers
- Audio header

MECHANICAL
Board Style
- Thin mini-ITX / microATX-compatible (20mm z-height)
- 170mm x 170mm

Baseboard Power Requirements
- DC connectivity via back-panel DC jack (2.5mm / ID, 5.5mm / OD)

ENVIRONMENT
Operating Temperature
- 0°C to +50°C

Storage Temperature
- -20°C to +70°C

REGULATIONS AND SAFETY STANDARDS
United States
UL 60950-1

Canada
CAN / CSA-C22.2 No. 60950-1

Europe
(Low Voltage Directive 2006/95/EC)
EN 60950-1

International
IEC 60950-1

EMC Regulations (Class B)
United States
FCC CFR Title 47, Chapter I, Part 15, Subparts A / B

Canada
ICES-003

Europe
(EMC Directive 2004/108/EC)
EN 55022 and EN 55024

Australia/New Zealand
EN 55022

Japan
VCCI V-3

South Korea
KN-22 and KN-24

Taiwan
CNS 13438

International
CISPR 22

Environmental Compliance
Europe
Europe RoHS (Directive 2002/95/EC)

China
China RoHS (MII Order # 39)

[1] System resources and hardware (such as PCI and PCI Express*) require physical memory address locations that can reduce available addressable system memory. This could result in a reduction of as much as 1 GB or more of physical addressable memory being available to the operating system and applications, depending on the system configuration and operating system.

[2] Intel® High Definition Audio requires a system with an appropriate Intel® chipset and a motherboard with an appropriate codec and the necessary drivers installed. System sound quality will vary depending on actual implementation, controller, codec, drivers, and speakers. For more information about Intel® HD Audio, refer to www.intel.com/design/chipsets/hdaudio.htm

[3] Intel® Hyper-Threading Technology requires a computer system with a processor supporting HT Technology and an HT Technology-enabled chipset, BIOS, and operating system. Performance will vary depending on the specific hardware and software you use. For more information including details on which processors support HT Technology, see www.intel.com/info/hyperthreading.

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Actual Intel® Desktop Board may differ from the image shown.

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